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         (c) 2004 BIOSIS
File   8:Ei Compendex(R) 1970-2004/Jan W1
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         (c) 2004 Elsevier Science Ltd.
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File 248:PIRA 1975-2004/Jan W1
         (c) 2004 Pira International
File 315:ChemEng & Biotec Abs 1970-2003/Dec
         (c) 2003 DECHEMA
File 323:RAPRA Rubber & Plastics 1972-2003/Dec
          (c) 2003 RAPRA Technology Ltd
File 347:JAPIO Oct 1976-2003/Sep(Updated 040105)
         (c) 2004 JPO & JAPIO
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200403
         (c) 2004  Thomson Derwent
? ds

Set     Items   Description
S1    1993758   SUPERABSORP? OR SUPERABSORB? OR ABSORP? OR ABSORB?
S2    5033533   POLYMER? OR HOMOPOLYMER? OR COPOLYMER? OR TERPOLYMER? OR R-
             ESIN? OR GUM?
S3    1871907   LUBRIC? OR LUBE? OR GREAS? OR OIL? OR ANTICORRO? OR ANTIRE-
             ST? OR ANTIOX?
S4    6868202   PETROL? OR SYNTH? OR SILICON? OR SILOX? OR ESTER? OR GLYCO-
             L?
S5     335715   (WATER OR MOISTURE)(3N)(RESIST? OR FREE OR IMPERV? OR IMPE-
             RM? OR PROOF? OR BARRIER? OR PREVENT? OR MIGRAT? OR INHIBIT?)
S6      67272   WATERTIGHT OR WATERRESISTANT OR WATERPROOF OR WATERFREE OR
             MOISTUREPROOF OR MOISTUREFREE
S7     390113   S5 OR S6
S8     603630   ACRYL?
S9    1722661   CABLE? OR WIRE? OR WIRING
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S10    256129   S1 AND S2
S11     21329   S10 AND S3
S12      2068   S11 AND S7
S13      2068   *deleted*  S12 AND S3
S14       129   S12 AND S9
S15        34   S14 AND S8
S16        63   S14 AND S4
S17    294958   1 (3N) S2
S18     49202   S1 (3N) S2
S19      3324   S18 AND S3
S20       332   S19 AND S7
S21       120   S20 AND S8
S22        35   S20 AND S9
S23        13   S21 AND S9
S24        22   S22 NOT S23
? t s23/7,de/1-13

 23/7,DE/1     (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2004 JPO & JAPIO. All rts. reserv.

01561109
WATER SHIELDING TYPE OPTICAL FIBER CABLE

PUB. NO.:      60-039609  [JP 60039609  A]
PUBLISHED:     March 01, 1985 (19850301)
INVENTOR(s):   IRI EIJI
               KANEKO TAKASHI
               SHINTANI TAKESHI
               MIO KOTARO
               IJIRI YASUO
APPLICANT(s): DAINICHI NIPPON CABLES LTD [000326] (A Japanese Company or
               Corporation), JP (Japan)
APPL. NO.:     58-147792  [JP 83147792]
FILED:         August 11, 1983 (19830811)
JAPIO CLASS:   29.2 (PRECISION INSTRUMENTS -- Optical Equipment); 41.5
               (MATERIALS -- Electric Wires & Cables)
JAPIO KEYWORD:R012 (OPTICAL FIBERS)
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ABSTRACT

PURPOSE: To absorb intruding water by itself and to prevent running water by using a mixture composed of a hydrophobic material used as a base and a water absorptive material as a packing material for preventing the running water.

CONSTITUTION: Eight pieces of optical fiber core units 1 each formed by gathering six pieces of optical fibers around a tensile member 11 such as a metallic wire and winding a tape 13 for retentive winding are

gathered around a tensile member 2 and are covered with a water shielding layer 3 consisting of Al, etc. and an extruded protective sheath layer 4. A packing material 5 is packed in the inside space of the layer 3 and a mixture composed of a hydrophobic material and a water absorptive material is used as a packing material 5. Various hydrophobic materials such as polyurea **grease**, lithium soap **grease**, etc. are enumerated as the hydrophobic materials. The water absorptive material acts to **prevent** running **water** by absorbing the water by itself when the water intrudes to the inside of the layer 3. There are organic water **absorptive** materials such as **polymer**-grafted starch like **acrylic** acid modified starch, polymer-grafted cellulose, carboxymethyl cellulose, **acrylic** acid polymer, etc. and inorganic materials such as silica gel and quicklime as the water absorptive material.

23/7,DE/2 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015681588
WPI Acc No: 2003-743777/200370
Absorbent material used for articles such as sanitary article, performs absorption of preset amount of de-ionized water within preset time, after exposing absorbent material to de-ionized water
Patent Assignee: HOPKINS T E (HOPK-I); KAISER T A (KAIS-I); PARCHEN F R (PARC-I)
Inventor: HOPKINS T E; KAISER T A; PARCHEN F R
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030065296	A1	20030403	US 2001793005	A	20010226	200370	B

Priority Applications (No Type Date): US 2001793005 A 20010226
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030065296	A1		32	A61F-013/15	

Abstract (Basic): US 20030065296 A1
Abstract (Basic):

NOVELTY - An absorbent material comprises (in wt.%) super **absorbent polymer** (at least 30), thermoplastic polymer binder resin, and water (0.1-10). The absorbent material absorbs de-ionized water to at least 70 % of the capacity within 20 minutes, after exposing the material to de-ionized water.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) article, which is formed using the absorbent material;

(2) method of making absorbent material, which involves combining the thermoplastic **polymer** binder **resin**, super **absorbent polymer** and water in a twin screw extruded mechanism (10) into a blended composition, extruding the composition through extrusion openings in the twin screw extrusion mechanism, and forming the absorbent article; and

(3) method for providing migration prevention of liquid within the **cable** having at least one component, which involves extruding a composition comprising super **absorbent polymer** (30-90) and polyolefin binder resin, rapidly cooling obtained extruded component with non-liquid quenching unit to form the absorbent article, and providing at least one **cable** component with the absorbent article. The absorbent material absorbs liquid within the **cable** and provides liquid-blocking properties upon liquid absorption to prevent migration of liquid through the **cable.**

USE - For articles such as sanitary article, sealing composite article, water blocking tape article, agricultural article, filtration sheet article, absorbent liner article, packing material article for packaging item requiring moisture, filler material article and coating material article. The sanitary articles are disposable baby diapers, incontinence garments, bed pads, sanitary napkins, bandages, wound dressings, surgical drapes or clean-up pads. The sealing composite articles are used in wine corks, boats, houses, plumbing, water stops, caulking, gaskets, hydraulic cement, gutters, flat tire repair or **water proofing** composites. The **water** blocking tape article is used in fiber optic **cables** or power transmission **cables**. The agricultural article is used in controlled release carrier for insecticides, herbicide or pesticide, or in soil amendment for agricultural fields to improve capability of soils to keep water and nutrients near or with the roots of plants. The filtration sheet article is used in removal of water or moisture from gasoline, fuel, **oil** or organic solvent. The absorbent liner article is used in food packaging, astroturf, dikes, erosion control, irrigation systems, book repair, hydraulic devices, roofs, gas tanks, slaughter houses, mildew protectors, or shipping containers. The packaging material article is used in packaging cut flowers. The filler material article is used in recording material, batteries, brush fibers, fire place logs, furniture, gel transformers, tractor tires, diet pills, cast reinforcement, ballast, capillary devices, humidity control devices, or indoor/outdoor carpets. The coating material article is used in anti-fouling coatings, paint additives, or thickeners (all claimed).

ADVANTAGE - The absorbent material has superior water absorbent properties and water blocking properties, improved formability with minimum loss of integrity of the material.

DESCRIPTION OF DRAWING(S) - The figure shows the twin screw extrusion mechanism, used for manufacture of the absorbent article.

twin screw extruded mechanism (10)

pp; 32 DwgNo 2/3

Title Terms: ABSORB; MATERIAL; ARTICLE; SANITARY; ARTICLE; PERFORMANCE; ABSORB; PRESET; AMOUNT; DE; IONISE; WATER; PRESET; TIME; AFTER; EXPOSE; ABSORB; MATERIAL; DE; IONISE; WATER
Derwent Class: A14; A17; A23; A92; A96; A97; C07; D22; F07; G02; G04; P32; P73; V07; X12
International Patent Class (Main): A61F-013/15
International Patent Class (Additional): A61F-013/20; B32B-005/16; B32B-009/00; B32B-015/02; B32B-017/02; B32B-019/00; B32B-021/02; B32B-023/02; B32B-027/02

23/7,DE/3 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015629120
WPI Acc No: 2003-691302/200366
Method of producing signs for outdoor use such as vehicle license, involves providing substrate having faces, forming ink receptive receiving surface, forming indicia on coating, curing ink and laminating printed face
Patent Assignee: TRIP IND HOLDING BV (TRIP-N)
Inventor: BIERVLIET M; VAN HEIJNINGEN D
Number of Countries: 030 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1316434	A2	20030604	EP 200280051	A	20021203	200366 B

Priority Applications (No Type Date): GB 200213473 A 20020612; GB 200128905 A 20011203
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1316434	A2	E	12	B41M-005/00	

Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR
Abstract (Basic): EP 1316434 A2
Abstract (Basic):

NOVELTY - The substrate having retro-reflective face (a) for receiving printed indicia and face (b) for fixing a support is provided. An ink-receptive receiving surface on face (a) is formed which is absorbent towards ink used for printing indicia. Indicia is formed on coating by printing. The ink is cured and the printed face (a) is laminated with light-transmissive layer(s) to produce signs for outdoor use.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for sign for outdoor use comprising a substrate having a first retro-reflective face and second face for fixing to a support surface. The first face carrying printed indicia is formed by printing an ink on to an

ink-receptive receiving surface. The substrate is laminated to a light-transmissive layer with the indicia disposed between the substrate and the light-transmissive layer. The ink-receptive surface absorbs the ink and forms indicia into the surface.

USE - for producing signs for outdoor use (claimed),for producing vehicle registration or license, plates.

ADVANTAGE - The outdoor signs produced has excellent chemical resistance and weather proofing property. The signs produced have a consistent high quality finish and the process is a continuous high speed process. The receiving coating has excellent adhesion with the transparent layer due to the corona discharge treatment. The receiving coating has flexibility and adhesion due to the presence of modified cycloaliphatic epoxides.

DESCRIPTION OF DRAWING(S) - The figure shows the representation of apparatus for performing the method of producing signs for outdoor use.

pp; 12 DwgNo 1/4

Title Terms: METHOD; PRODUCE; SIGN; OUTDOOR; VEHICLE; LICENCE; SUBSTRATE; FACE; FORMING; INK; RECEPTIVE; RECEIVE; SURFACE; FORMING; INDICIA; COATING; CURE; INK; LAMINATE; PRINT; FACE

Derwent Class: A97; G05; P75

International Patent Class (Main): B41M-005/00

International Patent Class (Additional): B41M-007/00

23/7,DE/4 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

014136164

WPI Acc No: 2001-620375/200172

Manufacture of a water **absorbing resin**, used for e.g. disposable paper diapers, involves mixing inorganic microparticles and a surfactant to a hydrated gel-like polymer before drying, then drying the mixed components

Patent Assignee: SANYO CHEM IND LTD (SANN)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 2001213914	A	20010807	JP 200028026	A	20000204	200172	B

Priority Applications (No Type Date): JP 200028026 A 20000204

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2001213914	A		10	C08F-006/00	

Abstract (Basic): JP 2001213914 A

Abstract (Basic):

NOVELTY - Manufacture of a water **absorbing resin**, comprises mixing inorganic microparticles (B) and a surfactant (C) with a hydrated gel-like polymer (A), then drying the mixture.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the water **absorbing resin**.

USE - Used for disposable paper diapers for children and adults, for other sanitary materials and other absorption sheets such as sanitary towels, pads for incontinent persons, mother's milk pads, surgical under pads, puerperal mats, dressing materials for wound protection, and pet sheets such as freshness keeping sheets, drip absorption sheets, dewing formation prevention sheets, rice plant seedling sheets, concrete curing sheets, **water** run **prevention** sheets of **cables**, **oil** and water separation sheets, and sheets for fire extinguishing. The water **absorbing resin** is also used as a chemical pocket body warmer, a poultice, a gel bed, artificial snow, a gel-like aromatic agent, absorption gels, solidification agents such as solid water-retention agents, sludge solidification agents, and electrolyte gelatinizer of a battery.

ADVANTAGE - The water **absorbing resin** is manufactured easily and inexpensively, using usual manufacturing equipment and so the need for a special installation is eliminated. The air permeability of the water **absorbing resin** during drying is improved. The water **absorbing resin** is dried easily in a short period of time without degrading the quality and color of the resin. A side reaction due to overheating of the resin is **prevented**. The **water absorbent resin** is surface crosslinked uniformly. It is powdered easily and has high water absorbing capability and **moisture** absorption-**resistant** blocking property.

pp; 10 DwgNo 0/0

Title Terms: MANUFACTURE; WATER; ABSORB; RESIN; DISPOSABLE; PAPER; DIAPER; MIX; INORGANIC; MICROPARTICLES; SURFACTANT; HYDRATED; GEL; POLYMER; DRY; DRY; MIX; COMPONENT

Derwent Class: A18

International Patent Class (Main): C08F-006/00

23/7,DE/5 (Item 4 from file: 350)

Need Earliest Document Available

DIALOG(R)File 350:Derwent WPIX

013250942

WPI Acc No: 2000-422825/200036

Water blocking material-coated fiber for use as fiber reinforcing material in manufacture of fiber optic **cable** comprises **superabsorbent polymer** and dispersing medium

Patent Assignee: DU PONT DE NEMOURS & CO E I (DUPO); PFISTER F V (PFIS-I) ; REBOUILLAT S (REBO-I)

Inventor: PFISTER F V; REBOUILLAT S
Number of Countries: 032 Number of Patents: 012
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200031752	A2	20000602	WO 99US27558	A	19991122	200036	B
AU 200019177	A	20000613	AU 200019177	A	19991122	200043	
BR 9916867	A	20010821	BR 9916867	A	19991122	200155	
			WO 99US27558	A	19991122		
EP 1133774	A2	20010919	EP 99962813	A	19991122	200155	
			WO 99US27558	A	19991122		
KR 2001089842	A	20011011	KR 2001706459	A	20010523	200221	
ZA 200102547	A	20020529	ZA 20012547	A	20010328	200240	
CN 1346496	A	20020424	CN 99813549	A	19991122	200251	
MX 2001005177	A1	20011201	MX 20015177	A	20010523	200282	
US 20030124350	A1	20030703	US 98109719	P	19981124	200345	
			US 99443695	A	19991119		
			US 2002317575	A	20021212		
US 6586094	B1	20030701	US 98109719	P	19981124	200345	
			US 99443695	A	19991119		
TW 522194	A	20030301	TW 99120535	A	19991125	200365	
JP 2003528986	W	20030930	WO 99US27558	A	19991122	200365	
			JP 2000584491	A	19991122		

Priority Applications (No Type Date): US 99443695 A 19991119; US 98109719 P 19981124; US 2002317575 A 20021212
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200031752	A2	E	26	H01B-007/28	
Designated States (National): AU BR CA CN IN JP KR MX RU SG ZA					
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
AU 200019177	A				Based on patent WO 200031752
BR 9916867	A			H01B-007/28	Based on patent WO 200031752
EP 1133774	A2	E		H01B-007/28	Based on patent WO 200031752
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
KR 2001089842	A			D06M-015/03	
ZA 200102547	A		52	H01B-000/00	
CN 1346496	A			H01B-007/28	
MX 2001005177	A1			C03C-025/10	
US 20030124350	A1			D02G-003/00	Provisional application US 98109719
					Div ex application US 99443695
US 6586094	B1			D02G-003/00	Provisional application US 98109719
TW 522194	A			D06M-015/00	
JP 2003528986	W		38	D06M-015/263	Based on patent WO 200031752

Abstract (Basic): WO 200031752 A2

Abstract (Basic):

NOVELTY - A fiber is coated with a water blocking material that includes an essentially **water free** dispersion comprising a **superabsorbent polymer** and a dispersing medium.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for (a) a fibrous material or a yarn comprising the invented fibers; (b) a method of coating a fiber with a water blocking material; and (c) a process of preparing a **superabsorbent polymer** by raising the temperature of an aqueous monomer solution to initiate the polymerization of the monomer, maintaining the temperature during the polymerization, and evaporating the water to produce a polymer. The preparation process provides a shearing rate of 10,000 revolutions per minute during the entire process.

USE - The fibers are used as fiber reinforcing material useful in the manufacture of **cables**, and in particular in yarns for fiber optic **cables** that use optical light wave guides for optical communication transmissions.

ADVANTAGE - The invented fibers have an excellent water blocking effect because the **superabsorbent polymer** applied to the fiber swells when contacted with **water** and thus **prevents** further penetration of the water along the fibers. The mechanical characteristics of the fiber are not impaired by the **superabsorbent polymer** deposited on it. Further, since a good water blocking action is already achieved with small quantities of **superabsorbent polymer**, the weight and volume of the fiber do not increase so that the coated fibers may be used in the same applications as uncoated fibers.

pp; 26 DwgNo 0/0

Title Terms: WATER; BLOCK; MATERIAL; COATING; REINFORCED; MATERIAL; MANUFACTURE; OPTICAL; **CABLE**; COMPRISE; POLYMER; DISPERSE; MEDIUM

Derwent Class: A14; A28; A89; F06; L01; P81; V07; X12

International Patent Class (Main): C03C-025/10; D02G-003/00; D06M-015/00; D06M-015/03; D06M-015/263; H01B-000/00; H01B-007/28

International Patent Class (Additional): D06M-015/267; D06M-015/285; D06M-101-00; D06M-101-36; G02B-006/44; H01B-007/282; H01B-011/00

23/7,DE/6 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

013239812

WPI Acc No: 2000-411686/200035

New water-blocking coatings for fiber-reinforced articles such as **cables** and rods comprises a **superabsorbent** water-soluble **polymer** precursor

Patent Assignee: OWENS CORNING (OWEN); FLAUTT M C (FLAU-I); HAGER T P (HAGE-I); PRIEST J R (PRIE-I); STOTLER D V (STOT-I); OWENS-CORNING

FIBERGLAS TECHNOLOGY INC (OWEN)
Inventor: FLAUTT M C; HAGER T P; PRIEST J R; STOTLER D V
Number of Countries: 090 Number of Patents: 014
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200029486	A1	20000525	WO 99US25660	A	19991103	200035 B
AU 200012419	A	20000605	AU 200012419	A	19991103	200042
NO 200102309	A	20010510	WO 99US25660	A	19991103	200141
			NO 20012309	A	20010510	
BR 9914944	A	20010710	BR 9914944	A	19991103	200142
			WO 99US25660	A	19991103	
US 20010016619	A1	20010823	US 98190866	A	19981113	200151
EP 1137714	A1	20011004	EP 99972238	A	19991103	200158
			WO 99US25660	A	19991103	
ZA 200103372	A	20011224	ZA 20013372	A	20010425	200212
KR 2001103625	A	20011123	KR 2001705345	A	20010427	200232
US 6380298	B2	20020430	US 98190866	A	19981113	200235
MX 2001004430	A1	20010701	MX 20014430	A	20010503	200236
US 20020165312	A1	20021107	US 98190866	A	19981113	200275
			US 200155154	A	20011026	
JP 2002530459	W	20020917	WO 99US25660	A	19991103	200276
			JP 2000582466	A	19991103	
CN 1371407	A	20020925	CN 99813226	A	19991103	200305
AU 765727	B	20030925	AU 200012419	A	19991103	200373

Priority Applications (No Type Date): US 98190866 A 19981113; US 200155154 A 20011026
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200029486	A1	E	22	C08L-101/14	
Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW					
AU 200012419	A			C08L-101/14	Based on patent WO 200029486
NO 200102309	A			C08L-101/14	
BR 9914944	A			C08L-101/14	Based on patent WO 200029486
US 20010016619	A1			C08L-033/02	
EP 1137714	A1	E		C08L-101/14	Based on patent WO 200029486
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
ZA 200103372	A		36	C08L-000/00	
KR 2001103625	A			C09D-133/08	
US 6380298	B2			C08L-101/14	
MX 2001004430	A1			C08L-101/14	
US 20020165312	A1			C08L-001/00	Div ex application US 98190866

JP 2002530459 W	22 C09D-201/00	Div ex patent US 6380298 Based on patent WO 200029486
CN 1371407 A	C08L-101/14	
AU 765727 B	C08L-101/14	Previous Publ. patent AU 200012419 Based on patent WO 200029486

Abstract (Basic): WO 200029486 A1
Abstract (Basic):

NOVELTY - An aqueous coating composition (1) comprises a **superabsorbent** water-soluble **polymer** precursor (2).

DETAILED DESCRIPTION - INDEPENDENT CLAIMs are also included for:

(i) Method of forming a superabsorbent, **water-resistant** coating on the surface of an article which comprises (a) preparation of a liquid coating composition comprising (2) that absorbs and desorbs water when coating is exposed to an aqueous or moisture-containing environment and a viscosity modifying agent (3); (b) applying the liquid coating composition to the article to form a **water-resistant** coating layer on the surface of the article. The article comprises reinforcing fibers and (c) drying and curing the liquid coating.

(ii) An article having a coating comprising: a **superabsorbent polymer**; a viscosity modifying agent; and a binder, and

(iii) an aqueous coating composition comprising: a **superabsorbent polymer** precursor; a viscosity modifying agent; and a binder.

USE - A highly absorbent water-blocking coating used to coat a reinforcing fiber material e.g. glass, carbon, at least one polymer and/or natural fibers (claimed). Also used to coat rods and **cables**.

ADVANTAGE - The coatings have an excellent water swelling capacity and rapid swell rate. The coatings containing **superabsorbent polymer** are capable of instantaneous water absorption when exposed to aqueous environments. The polymer precursor is non-toxic and environmentally safe. The coating has high level of water absorption in fresh and salt-water environments, excellent spreading and coating ability when applied to a substrate.

pp; 22 DwgNo 0/0

Title Terms: NEW; WATER; BLOCK; COATING; REINFORCED; ARTICLE; **CABLE**; ROD; COMPRISE; WATER; SOLUBLE; POLYMER; PRECURSOR
Derwent Class: A11; A14; A28; A82; F06; G03; V07
International Patent Class (Main): C08L-000/00; C08L-001/00; C08L-033/02; C08L-101/14; C09D-133/08; C09D-201/00
International Patent Class (Additional): C09D-005/02; C09D-101/28; C09D-133/00; C09D-133/02; C09D-133/26; C09D-163/00; C09D-167/00; C09D-175/04; C09D-175-04; D06M-015/263; D06M-015/564; D06M-101-00; D06M-101-02; C09D-133-26

23/7,DE/7 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012674803
WPI Acc No: 1999-480910/199941
Water-absorbing agent used in body-fluid-absorbent articles
Patent Assignee: NIPPON SHOKUBAI CO LTD (JAPC); FUJITA Y (FUJI-I); HATSUDA T (HATS-I); MIYAKE K (MIYA-I); NAGASUNA K (NAGA-I); TAKAHASHI N (TAKA-I); UEDA H (UEDA-I); WADA K (WADA-I)
Inventor: FUJITA Y; HATSUDA T; MIYAKE K; NAGASUNA K; TAKAHASHI N; UEDA H; WADA K
Number of Countries: 032 Number of Patents: 013
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 940148	A1	19990908	EP 99103704	A	19990225	199941 B
CN 1229808	A	19990929	CN 99102593	A	19990303	200003
JP 11315147	A	19991116	JP 9949113	A	19990225	200005
JP 11315148	A	19991116	JP 9949111	A	19990225	200007
JP 11335574	A	19991207	JP 9964027	A	19990310	200008
JP 2000000463	A	20000107	JP 9957668	A	19990304	200012
BR 9900855	A	20000328	BR 99855	A	19990303	200029
MX 9902053	A1	20000201	MX 992053	A	19990302	200123
KR 2000063574	A	20001106	KR 996746	A	19990302	200128
US 20020120074	A1	20020829	US 99255433	A	19990222	200259
US 6599989	B2	20030729	US 99255433	A	19990222	200354
US 20030176589	A1	20030918	US 99255433	A	19990222	200362
			US 2003378498	A	20030303	
TW 534916	A	20030601	TW 99102786	A	19990224	200374

Priority Applications (No Type Date): JP 98104814 A 19980415; JP 9850344 A 19980303; JP 9850346 A 19980303; JP 9879280 A 19980326
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 940148	A1	E	57	A61L-015/60	
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
CN 1229808	A			C08J-003/00	
JP 11315147	A		9	C08J-003/12	
JP 11315148	A		9	C08J-003/24	
JP 11335574	A		14	C08L-101/14	
JP 2000000463	A		25	B01J-020/26	
BR 9900855	A			A61L-015/22	
MX 9902053	A1			A61L-015/60	
KR 2000063574	A			A61F-013/15	
US 20020120074	A1			C08F-008/32	
US 6599989	B2			C08J-003/24	
US 20030176589	A1			C08F-008/32	Div ex application US 99255433

TW 534916 A A61L-015/60

Abstract (Basic): EP 940148 A1
Abstract (Basic):

NOVELTY - The water-absorbing agent has an absorption capacity of 30 (g/g) or more under no load and static deterioration absorption capacity (1) of 20 (g/g) or more under load.

DETAILED DESCRIPTION - The static deterioration absorption capacity (1) is determined by the following steps: swelling a water-absorbing agent to 15 (g/g) with a physiological sodium chloride solution containing L-ascorbic acid in a concentration of 0.005 wt %; leaving the water-absorbing agent in such a swollen state for 6 hours; allowing the swollen water-absorbing agent to absorb the physiological sodium chloride solution for another 1 hour in a state where a load of 50 g/cm2 is mounted on the swollen water-absorbing agent; and measuring the weight of the resultant swollen gel.

INDEPENDENT CLAIMS are also included for:

(a) a water-absorbing agent, having an absorption capacity of 30 (g/g) or more under no load and a dynamic deterioration absorption capacity of 20 (g/g) or more under a load;

(b) a water-absorbing agent, having an absorption capacity of 30 (g/g) or more under no load and static deterioration capacity (4) of 30 (g/g) or more under a load;

(c) an absorbent matter comprising the water-absorbing agent and a fibrous base material, wherein the weight ratio of the water-absorbing agent to the total of the water-absorbing agent and the fibrous base material is 0.4 or more;

(d) an absorbent article comprising an absorbent layer including the absorbent matter; a liquid-permeable surface sheet; and a liquid-impermeable back sheet;

(e) an absorption property measurement;

(f) production of the water-absorbing agent;

(g) a water-absorbing agent, obtained by a process including the step of adding to a water-**absorbent resin** at least one chelating agent of formula (I) and (II) and maleic hydrophilic polymers (including salts) (3); and

(h) a body-fluid-absorbent article comprising the above water-absorbing article.

n and m=0, 1;
X1=COOM1;
R1 and R5=H, OH, Me;
R2=H, -CH2COOM2, -CH2CH2COOM2;
R3=-CH2COOM3, -CH2CH2COOM3, -(M3OOC)-CH-C(COOM3)H-R4;
M1, M2 and M3=H, Na, K, NH4;
X2=COOM4;
R5=H, OH, Me;
R6=H, -CH2COOM5, -CH2CH2COOM5;
R7=-CH2COOM6, -CH2CH2COOM6 ;

R8=-CH2COOM7, -CH2CH2COOM7, -(M7OOC)-CH-C(COOM7)H-R9
M6, M7 and M8=H, Na, K, NH4;
R9=H, OH, Me.
USE - A water-absorbing agent is provided for use in **absorbent** articles having high **resin** concentration. Examples of **absorbent** articles are sanitary materials such as paper nappies, sanitary towels, incontinent pads, wound-protecting materials, and wound-curing materials, absorbent articles for urine of pets, materials for civil engineering and architecture, such as water-holding materials, water-cutting-off materials, packing materials, and hydrogel bags, for building materials or soil, articles for food, such as drip-absorbent materials, freshness-keeping materials, and coldness keeping materials, various industrial articles, such as **oil-water**-separating materials, dewfall-**preventing** materials, and solidification materials, and agricultural and horticultural articles, such as water-holding materials for plants and soil.
ADVANTAGE - The absorbent matter displays excellent absorption properties. The water absorbing agent has excellent urine resistance and also has excellent absorption properties that are stable to any composition of urine and show little change with time.
pp; 57 DwgNo 0/1
Title Terms: WATER; ABSORB; AGENT; BODY; FLUID; ABSORB; ARTICLE
Derwent Class: A14; A35; A95; A96; D22; F07; P32; P34; S03
International Patent Class (Main): A61F-013/15; A61L-015/22; B01J-020/26; C08F-008/32; C08J-003/00; C08J-003/12; C08J-003/24; C08L-101/14
International Patent Class (Additional): A61F-013/45; A61L-015/34; A61L-015/60; C08F-020/00; C08J-005/04; C08J-005/10; C08K-005/00; C08K-005/17; C08L-033/02; C08L-035/00; G01N-005/00

23/7,DE/8 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012523261
WPI Acc No: 1999-329367/199928
Water **absorbent resin** obtained by static polymerization
Patent Assignee: NIPPON SHOKUBAI CO LTD (JAPC)
Inventor: HATSUDA T; MOTONO Y; NAMBA T
Number of Countries: 030 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 922717	A1	19990616	EP 98121991	A	19981119	199928	B
JP 11228604	A	19990824	JP 98325603	A	19981116	199944	
CN 1224024	A	19990728	CN 98123294	A	19981208	199948	
KR 99062939	A	19990726	KR 9854016	A	19981209	200043	
US 6174978	B1	20010116	US 98197220	A	19981120	200106	

TW 473485	A	20020121	TW 98119036	A	19981117	200308	
KR 348149	B	20021129	KR 9854016	A	19981209	200334	

Priority Applications (No Type Date): JP 97340030 A 19971210
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 922717	A1	E	15	C08F-220/04	
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI					
JP 11228604	A		10	C08F-002/10	
CN 1224024	A			C08F-002/10	
KR 99062939	A			C08F-002/10	
US 6174978	B1			C08F-030/04	
TW 473485	A			C08F-002/04	
KR 348149	B			C08F-002/10	Previous Publ. patent KR 99062939

Abstract (Basic): EP 922717 A1
Abstract (Basic):

NOVELTY - A water-**absorbent resin** is obtained by static polymerization i.e. without stirring, of an aqueous solution of thickness 10-15 mm containing a hydrophobic monomer at a maximum polymerization temperature of 60-90 degreesC with removal of polymerization heat on cooling by conductive heat transfer and due to the latent heat of vaporization.

USE - The water-**absorbent resin** is useful in the production of sanitary materials, e.g. paper diapers, physiological napkins and incontinent pads, and in industry for water preservation (e.g. for plants and soil), humidity control, and gelation. The resin is also useful in separation of water from **oil**, dehydrating and drying, as solidification agents for muddy sediment, dewfall **prevention**, and as a **water** cutoff agent for electrical **wires**, optical fibers, engineering works and buildings.

ADVANTAGE - The resin avoids some drawbacks of previous materials, e.g. lack of molecular weight increased due to cutting of the molecular chains during stirring polymerization, undesirable increase in water-soluble content, and low productivity production processes, since the maximum temperature is controlled by lowering the concentration or thickening of the aqueous monomer solution.

DESCRIPTION OF DRAWING(S) - The drawing shows a flow diagram for production of a water-**absorbent resin**.

pp; 15 DwgNo 1/1
Title Terms: WATER; ABSORB; RESIN; OBTAIN; STATIC; POLYMERISE
Derwent Class: A14; A35; A85; A93; A96; A97; C04; D22; F07; P34
International Patent Class (Main): C08F-002/04; C08F-002/10; C08F-030/04; C08F-220/04
International Patent Class (Additional): A61L-015/60

23/7,DE/9 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011572784
WPI Acc No: 1997-549265/199750
Cable carrying optical fibres and tapes bundled loosely in buffer tubes - **prevents** spread of **water** along **cable** passages using water **absorptive** material as interpenetrating **polymer** network in tubes, successfully avoiding use of swelling powders, yarns, tapes, **greases** and gels
Patent Assignee: SIECOR CORP (SIEC-N)
Inventor: BRINGUIER A G; CLYBURN C E; FIELD L W
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5684904	A	19971104	US 96661244	A	19960610	199750	B

Priority Applications (No Type Date): US 96661244 A 19960610
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5684904	A		10	G02B-006/44	

Abstract (Basic): US 5684904 A

A novel **cable** carries optical fibres loosely in buffer tubes with inner and outer layers. Either layer is a thermoplastic resin with at least 15 wt% of moisture absorptive material, preferably a thermally-cross linked polymer. The tube does not comprise an adhesive. The moisture absorbing layer is radiation cured, preferably using ultraviolet light. The material is preferably obtained by reacting **acrylic** acid 10-30 wt%, sodium **acrylate** 50-80 wt% and an **acrylate** oligomer 10-40 wt%. A hydrophilic **polyacrylate** is obtained from a monomer selected from: 2-ethoxyethyl **methacrylate**, ethylene glycol **diacrylate** and ethoxylated trimetholpropane **triacrylate**. The moisture absorptive material comprises an interpenetrating polymer network formed from a **polyacrylic** acid sodium salt solution and a soluble **acrylate** monomer. Optical fibre ribbons may also be contained in the **cable**.

USE - An optical fibre **cable** for telecommunications.

ADVANTAGE - This **cable** provides improved protection against flow of moisture along the **cable** passages. Although pressurised gas **cables** are used, their effectiveness in this respect can end, if a leak develops. Internal **grease** or gel protection is generally messy, and requires expensive materials providing long term mutual compatibility. The new method avoids swelling powders, yarns, tapes and water blocking gels.

Dwg.3/7
Title Terms: **CABLE**; CARRY; OPTICAL; FIBRE; TAPE; BUNDLE; LOOSE;

BUFFER; TUBE; PREVENT; SPREAD; WATER; **CABLE**; PASSAGE; WATER; ABSORB ; MATERIAL; POLYMER; NETWORK; TUBE; SUCCESS; AVOID; SWELLING; POWDER; YARN; TAPE; **GREASE**; GEL
Derwent Class: A14; A89; P81; V07
International Patent Class (Main): G02B-006/44

23/7,DE/10 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010543075
WPI Acc No: 1996-040029/199604
Modified water **absorbent resin** particles for sanitary napkins - prepd. by treating particles of substantially water insol. water **absorbent** crosslinked **acrylic resin** with liq. organopolysiloxane
Patent Assignee: SANYO CHEM IND LTD (SANN); SANYO KASEI KOGYO KK (SANN)
Inventor: DATE M; FUJITA M; KOIKE M; SUMIYA T; TANAKA K
Number of Countries: 021 Number of Patents: 014
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9533558	A1	19951214	WO 95JP1076	A	19950531	199604	B
AU 9525757	A	19960104	AU 9525757	A	19950531	199613	
EP 705643	A1	19960410	EP 95111005	A	19950713	199619	
FI 9503233	A	19960406	FI 953233	A	19950629	199636	
JP 7527539	X	19961126	JP 95527539	A	19950531	199708	
			WO 95JP1076	A	19950531		
US 5668078	A	19970916	US 95476718	A	19950607	199743	
AU 682117	B	19970918	AU 9525757	A	19950531	199746	
CN 1129407	A	19960821	CN 95190523	A	19950531	199751	
TW 341517	A	19981001	TW 95105908	A	19950608	199904	
EP 705643	B1	19991222	EP 95111005	A	19950713	200004	
DE 69514064	E	20000127	DE 614064	A	19950713	200012	
			EP 95111005	A	19950713		
ES 2140584	T3	20000301	EP 95111005	A	19950713	200018	
KR 169576	B1	19990115	WO 95JP1076	A	19950531	200037	
			KR 96700541	A	19960202		
JP 3169133	B2	20010521	JP 95527539	A	19950531	200130	
			WO 95JP1076	A	19950531		

Priority Applications (No Type Date): JP 94268283 A 19941005; JP 94148631 A 19940606
Cited Patents: JP 570625; JP 61264006; US 4755560
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9533558	A1	J	35	B01J-020/26	

Designated States (National): AU CN JP KR

AU 9525757	A		B01J-020/26	Based on patent WO 9533558
EP 705643	A1 E	11	B01J-020/32	
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI NL SE				
FI 9503233	A		B01J-000/00	
JP 7527539	X		B01J-020/26	Based on patent WO 9533558
US 5668078	A	7	B01J-020/26	
AU 682117	B		B01J-020/26	Previous Publ. patent AU 9525757 Based on patent WO 9533558
CN 1129407	A		B01J-020/26	
TW 341517	A		A61L-015/22	
EP 705643	B1 E		B01J-020/32	
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI NL SE				
DE 69514064	E		B01J-020/32	Based on patent EP 705643
ES 2140584	T3		B01J-020/32	Based on patent EP 705643
KR 169576	B1		B01J-020/26	
JP 3169133	B2	12	A61F-013/53	Based on patent WO 9533558

Abstract (Basic): WO 9533558 A

Modified water-**absorbent resin** particles are prepd. by treating: (a) particles of substantially water-insol. water-**absorbent resin** (A) comprising a crosslinked polymer of an ethylenically unsaturated monomer contg. **acrylic** acid and/or **acrylate** salt as the main constituent; with (b) an organopolysiloxane (B) which is liq. at ordinary temp. (A) and (B) are in a state of being mixed and/or reacted with each other; at least 95 wt.% of (A) particles have 10-1000 mu.m. dia.; and the wt. ratio of (A) to (B) is 100/(0.001-5).

USE - For various water-absorbent uses, particularly, hygienic articles and absorbent materials, such as sanitary napkins, paper diapers, pads for incontinence, breast milk pads, surgical underpads, pet sheets and absorbent patches; and further, for various uses, for example, for foodstuffs, such as freshness preserving material, cold reserving material and drip absorbing material, for removing water from **oil**, and as a desiccant, water retainer for plants and soil, sludge coagulant, dew condensation **preventer**, **water** cut-off and packing material for the construction industry, water cut-off material for electrical **cables** and optical fibre **cables**, and artificial snow.

ADVANTAGE - The resin particles have improved blocking **resistance** after **moisture** absorption and improved **prevention** of dusting, while retaining the absorption characteristics of water-**absorbent resins**, such as **absorption** under normal pressure, absorption under applied pressure, and surface dryness after moisture absorption.

Dwg.0/0

Abstract (Equivalent): US 5668078 A

A process for producing water-**absorbent resin** particles comprises reacting water-insoluble water-**absorbent resin**

particles with a modified silicone **oil**, the particles comprising crosslinked polymers of ethylenically unsaturated monomers that comprise **acrylic** acid and/or **acrylic** acid salt as an essential element and having an average particle size of 200-600 mu m, the modified silicone **oil** having a functional group capable of reacting with a carboxyl group and/or a carboxylate group in the molecule and having a molecular weight of approximately 1,000-1,000,000 and a viscosity of 10-20,000 cst at 25 deg. C.

Dwg.0/0

Title Terms: MODIFIED; WATER; ABSORB; RESIN; PARTICLE; SANITARY; NAPKIN; PREPARATION; TREAT; PARTICLE; SUBSTANTIAL; WATER; INSOLUBLE; WATER; ABSORB; CROSSLINK; **ACRYLIC**; RESIN; LIQUID; ORGANO; POLYSILOXANE

Derwent Class: A26; A96; D22; P32; P34; V07; X12

International Patent Class (Main): A61F-013/53; A61L-015/22; B01J-000/00; B01J-020/26; B01J-020/32

International Patent Class (Additional): A61F-013/15; A61L-015/00; C08F-008/00; C08G-081/02; C08J-003/12; C08J-003/14; C08J-003/16; C08L-033/02; C08L-101/14

23/7,DE/11 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

009502746

WPI Acc No: 1993-196282/199324

Compsn. to protect enclosed components from water damage - includes gel matrix with thickener having water **absorbent polymer** with pendant anionic gps. dispersed

Patent Assignee: WATERGUARD IND INC (WATE-N)

Inventor: FREEMAN C S

Number of Countries: 004 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5218011	A	19930608	US 86844144	A	19860326	199324	B
			US 86939007	A	19861208		
			US 8745889	A	19870501		
			US 88181833	A	19880415		
			US 88253914	A	19881006		
			US 89335182	A	19890407		
			US 89453596	A	19891220		
			US 91703692	A	19910520		
HU 210907	B	19950928	HU 903420	A	19900405	199545	
			WO 90US1863	A	19900405		
IL 94034	A	19961031	IL 94034	A	19900406	199704	
MX 196111	A	20000425	MX 20237	A	19900406	200127	

Priority Applications (No Type Date): US 89453596 A 19891220; US 86844144 A

19860326; US 86939007 A 19861208; US 8745889 A 19870501; US 88181833 A 19880415; US 88253914 A 19881006; US 89335182 A 19890407; US 91703692 A 19910520; US 90489211 A 19900302

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5218011	A		11	H02G-015/00	CIP of application US 86844144 CIP of application US 86939007 Cont of application US 8745889 Cont of application US 88181833 CIP of application US 88253914 CIP of application US 89335182 Cont of application US 89453596 CIP of patent US 4711022 CIP of patent US 4752997
HU 210907	B			H01B-011/00	Previous Publ. patent HU 60564 Based on patent WO 9012406
IL 94034	A			H01B-003/00	
MX 196111	A			H01B-011/000	

Abstract (Basic): US 5218011 A

Compsn. comprises dielectric **oil** (pref. white **oil**); (pref. about 4-10 wt.% of the compsn. of) organophilic clay (pref. bentonite) mixed with the dielectric **oil** for thickening the **oil** to form gel matrix (pref. which comprises about 61.6-84.75 wt.% of the compsn.); and (pref. 10-33.3 wt.% of the compsn. of) non-biodegradable water **absorbent polymer** (pref. **polymers** of **acrylic** acids, alpha-methylpropenoic acids, beta-methylpropenoic acids, maleic acids, fumaric acids and maleic and fumaric anhydrides) dispersed in the gel matrix. The polymer has anionic gps. (pref. carboxylate, sulphate, sulphonate, phosphate, phosphonate gps. and mixts.) attached to the polymeric backbone, the anionic gps., when exposed to direct current from electrical component that is in condition of short caused by the presence of water, causing the polymer to be attracted to the electrical component, the electrical component acting as anode to draw the anionic gps. of the polymer into electrochemical association with the electrical component, the accumulated polymer insulating the electrical component and eliminating the short to restore current through the electrical component.

ADVANTAGE - The gel compsn. is activated by moisture to absorb water and is used to protect electrical or other components contained within enclosure from water damage. It is partic. useful when introduced into confined areas such as intrument casings, housings for **cable** lines, splices or junction boxes, and the sheath of electric distribution, telecommunications, coaxial or fibre optical **cables** to protect the contents or conductors contained therein from water damage for extended periods of time. The gel can be introduced into housing, **cable** or junction box prior to or during service and can be incorporated into the **cable** itself, both between conductors in a bundle and/or between bundles of conductors in

the **cable**. The gel not only **prevents** entry of **water**, but also eliminates shorts caused by water and restores current flow through the **wire**
Dwg.0/0
Title Terms: COMPOSITION; PROTECT; ENCLOSE; COMPONENT; WATER; DAMAGE; GEL; MATRIX; THICKEN; WATER; ABSORB; POLYMER; PENDANT; ANION; GROUP; DISPERSE
Derwent Class: A18; A85; H08; L03; V07; X12
International Patent Class (Main): H01B-003/00; H01B-011/00; H01B-011/000; H02G-015/00
International Patent Class (Additional): C09K-003/18

23/7,DE/12 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007550244
WPI Acc No: 1988-184176/198827
Substrate for optical disc - comprises copolymer of methyl **polymethacrylate**, polyvinyl aromatic monomer, **polymethacrylic** acid and hexagonal polyimide units
Patent Assignee: ASAHI KASEI KOGYO KK (ASAH)
Inventor: KAKUTA R; WADA A
Number of Countries: 012 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 273092	A	19880706	EP 87102979	A	19870303	198827	B
JP 63163301	A	19880706	JP 86308042	A	19861225	198833	
JP 63163302	A	19880706	JP 86308043	A	19861225	198833	
US 4820778	A	19890411	US 8721267	A	19870303	198917	
CA 1274936	A	19901002				199045	
EP 273092	B1	19930728	EP 87102979	A	19870303	199330	
DE 3786769	G	19930902	DE 3786769	A	19870303	199336	
			EP 87102979	A	19870303		

Priority Applications (No Type Date): JP 86308043 A 19861225; JP 86308042 A 19861225
Cited Patents: 3.Jnl.Ref; A3...9017; JP 61043604; JP 61047707; JP 62004704; No-SR.Pub
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 273092	A	E	32		
Designated States (Regional): AT BE CH DE FR GB IT LI NL					
US 4820778	A		21		
EP 273092	B1	E	31	C08F-008/30	
Designated States (Regional): DE FR GB NL					
DE 3786769	G			C08F-008/30	Based on patent EP 273092

Abstract (Basic): EP 273092 A

A substrate (1) for an optical disc is made of a copolymer of 29-92 wt.% methyl **methacrylate**, 5-67 wt.% vinyl aromatic compd. (I), and 2-50 wt.% imide units (III). (I) is styrene or alpha-methylstyrene opt ring-substd. with 1-4C alkyl or chlorine. (II) and (III) have the formulae where R is H, 1-10C alkyl, 5-12C cycloalkyl, 7-22C aralkyl or 6-12C aryl. The copolymer 49-97 wt.% methyl **methacrylate** and (I), and 2-50 wt.% (II) and (III), and has reduced viscosity 0.15-2 dl/g measured at 25 deg.C on 0.5 dl of a soln of 0.15g copolymer in chloroform.

USE/ADVANTAGE - The copolymer has good optical properties, mechanical strength, heat distortion and decompsn. resistance and **oil resistance** and low **water absorption**. The **copolymer** can be used in light electric apparatus, engineering plastics, lenses and optical fibre **cables**.

1,2/2

Abstract (Equivalent): EP 273092 B

A substrate for an optical disc which is made of a random copolymer, comprising: (A) 29 to 92 % by weight, based on the copolymer, of methyl **methacrylate** units, (B) 5 to 67 % by weight, based on the copolymer, of aromatic vinyl compound units of the formula (I) wherein X is a hydrogen atom or a methyl group, and Y and Z are independently of each other a hydrogen atom, an alkyl group having 1 to 4 carbon atoms or a chlorine atom, (C) 1 to 10 % by weight, based on the copolymer, of **methacrylic** acid units, (D) 0 to 48 % by weight, based on the copolymer, of hexagonal anhydride units of the formula (II) and (E) 2 to 50 % by weight, based on the copolymer, of hexagonal imide units of the formula (III) wherein R is a hydrogen atom or R1 in which R1 is an alkyl group having 1 to 10 carbon atoms, a cycloalkyl group having 5 to 12 carbon atoms, an aralkyl group having 7 to 22 carbon atoms or an aryl group having 6 to 12 carbon atoms, the sum of the units (A) and (B) and the sum of the units (D) and (E) being respectively in the ranges of 49 to 97 % by weight and 2 to 50 % by weight, based on the copolymer, wherein the random copolymer has a reduced viscosity (sp/c) of 0.15 to 2 dl/g as measured at 25 deg.C with respect to 0.5 dl of a Solution of 0.15 g of the random copolymer in chloroform.

Dwg.1/2

Abstract (Equivalent): US 4820778 A

Random copolymer comprises methyl **methacrylate** units (29-92 wt.%); opt. substd. styrene units (5-67 wt.%), in which the benzene ring is opt. substd. with 1-4C alkyl and/or Cl, and/or an alpha-Me substit. may be present; **methacrylic** acid units (1-10 wt.%); imide units of formula (I), (2-50 wt.%), where Z is N(R), in which R is hydrocarbyl; and anhydride units of formula (I), (0-48 wt.%), in which Z is O; such that methyl **methacrylate** and styrene units together contribute 49-97 wt.%, and the anhydride and imide units together contribute 2-50 wt.%. The copolymer has a reduced viscosity 0.15-2.0

dl/g at 25 deg.C, (0.15g copolymer in 50 cm3 CHCl3). USE - The prods. have excellent optical and mechanical properties, coupled with heat and **oil** resistance; and are materials for the prodn. of light electrical devices, engineering plastics, lenses, optical fibre **cables** and optical discs.
(21pp
Title Terms: SUBSTRATE; OPTICAL; DISC; COMPRISE; COPOLYMER; METHYL; **POLYMETHACRYLATE**; POLYVINYL; AROMATIC; MONOMER; **POLYMETHACRYLIC**; ACID; HEXAGON; POLYIMIDE; UNIT
Index Terms/Additional Words: **SUBSSubstrate for optical disc_**
Derwent Class: A13; A14; A89; G06; T03; W04
International Patent Class (Main): C08F-008/30
International Patent Class (Additional): G02B-001/04; G11B-007/24

23/7,DE/13 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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Need ① Earliest document and ② Eng Equiv if available

003645603
WPI Acc No: 1983-05615K/198303
Compsn. for **waterproof cable** - comprising naphthene or paraffin **oil**, low molecular wt. polyethylene or petroleum wax, water-**absorbing resin**, rubber and additives
Patent Assignee: FUJIKURA CABLE WORKS LTD (FUJD)
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 57196411	A	19821202	JP 8181399	A	19810528	198303	B
JP 89037813	B	19890809				198935	

Priority Applications (No Type Date): JP 8181399 A 19810528
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 57196411	A		4		

Abstract (Basic): JP 57196411 A
Compsn. comprises naphthene or paraffin **oil**, water-**absorbing resin**, rubber, low molecular wt. polyethylene or petroleum wax and additives.
The water **absorbing resin** is pref. **polyacrylate**, PVA polyethylene oxide or methyl carboxylate. Pref. rubber is polybutadiene, polyisoprene or an ethylene-butylene cpolymer. The petroleum wax is pref. paraffin- or microcrystalline wax. The cpd. which is solid at room temp. is fluidised by heating, poured into the sheath of a **cable**, and solidified. It is easy to remove the cpd. from the **cable**.
Specifically the cpd. consists of 100 pts. wt. naphthene **oil**

, 20 pts. wt. water **absorbing resin**, 5 pts. wt. rubber, 7 pts. wt. petroleum wax and 0.2 pts. wt. **antioxidant**.
Title Terms: COMPOSITION; **WATERPROOF**; **CABLE**; COMPRISE; NAPHTHENE; PARAFFIN; **OIL**; LOW; MOLECULAR; WEIGHT; POLYETHYLENE; PETROL; WAX; WATER; ABSORB; RESIN; RUBBER; ADDITIVE
Index Terms/Additional Words: **PVA**; **POLYVINYL**; **ALCOHOL**; OXIDE; METHYL; CARBOXYLATE; POLYBUTADIENE; POLYISOPRENE; POLYBUTYLENE
Derwent Class: A85; H08
International Patent Class (Additional): C09K-003/18; H01B-007/28
? t s24/7,de/1-22

24/7,DE/1 (Item 1 from file: 248)
DIALOG(R)File 248:PIRA

00634857 Pira Acc. Num.: 20226584
Title: Superabsorbers from sustainable raw materials
Authors: Anon
Source: Allg. Vliesstoff-Rep. no. 1, 2003, p. 28 (P)
ISSN: 0170-4060
Publication Year: 2003
Document Type: Journal Article
Language: German
Pira Subfiles: Paperbase (PB)
Journal Announcement: 0305
Abstract: Superabsorbers are water insoluble crosslinked polymers that are able to absorb and retain 20-100 times their own weight of aqueous liquids by swelling and the formation of hydrogels. They are used in combination with nonwovens in nappies and hygiene products as well as for **watertight cables** , and more recently also in the plant, food, woundcare and electronics sectors. They are characterised by their absorption capacity under different conditions. **Superabsorbent polymers** (SAP) have so far been made from **oil** -derived polyacrylic acid. New types of SAP, based on cellulose, starch and pectins, are being developed, with absorption capacities approximately 70% of those based on polyacrylic acid polymers. Researchers at Osnabruck University suggest that SAPs derived from sustainable resources could open new applications in the pharmaceutical and food sectors since they pose no dermatological or toxicological hazards.
Descriptors: HYGIENE PRODUCT; MEDICAL PRODUCT; NAPPY; NONWOVEN INDUSTRY; RAW MATERIAL; SUPERABSORBENT

24/7,DE/2 (Item 1 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics

00824894

TITLE: SWELLING INTERACTION, PLASTICIZATION, AND **ANTIOXIDANT** EXTRACTION BETWEEN FIBER OPTIC **CABLE** GELS AND POLYOLEFINS
AUTHOR(S): Risch B G
CORPORATE SOURCE: Alcatel Telecommunications Cable
SOURCE: Journal of Reinforced Plastics & Composites; 20, No.11, 2001, p.971-81
ISSN: 0731-6844
CODEN: JRPCDW JOURNAL ANNOUNCEMENT: 200110 RAPRA UPDATE: 200120
DOCUMENT TYPE: Journal Article
LANGUAGE: English
SUBFILE: (R) RAPRA
ABSTRACT: The effects of various water-blocking gels were investigated in relation to swelling behaviour of polyolefins. Gel absorption was studied in PE and propylene/ethylene copolymers as a function of temp. for a density range of 0.868 g/cc to 0.948 g/cc for PE and 0.88 to 0.91 g/cc for propylene/ethylene copolymers. The effect of swelling on **antioxidant** extraction was also studied as a function of **antioxidant** molec.wt. and degree of swelling. Both factors showed a strong effect on the amount of **antioxidant** extracted. A direct correlation was found between **antioxidant** extraction by gels and reduction in thermooxidative stability. 10 refs.
DESCRIPTORS: **ABSORPTION**; ALKENE **POLYMER**; **ANTIOXIDANT**; APPLICATION; **CABLE**; COMPANIES; COMPANY; DATA; DEGREE OF SWELLING; DENSITY; ETHENE COPOLYMER; ETHYLENE COPOLYMER; EXTRACTION; GEL; GELS; GRAPH; INTERACTION; MOLEC.WT.; MOLECULAR WEIGHT; OLEFIN POLYMER; OPTICAL FIBER; OPTICAL FIBRE; PE; PLASTIC; PLASTICISATION; PLASTICIZATION; POLYALKENE; POLYETHYLENE; POLYOLEFIN; PROPENE COPOLYMER ; PROPERTIES; PROPYLENE COPOLYMER; SWELLING; TABLES; TECHNICAL; TEMPERATURE; THERMOOXIDATIVE STABILITY; THERMOPLASTIC; **WATER RESISTANCE**; **WATER RESISTANT**

24/7,DE/3 (Item 2 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics

00687334
TITLE: POLYPROPYLENE COMPATIBLE **GREASE** COMPOSITIONS FOR OPTICAL FIBER **CABLE**
AUTHOR(S): Brauer M
CORPORATE SOURCE: Caschem Inc.
PATENT NUMBER: US 5672640 A
PATENT DATE: 19970930
PATENT COUNTRY/KIND CODE: US A
APPLICATION NUMBER: US 500650 (US 500650-1995)
APPLICATION DATE: 19950712
JOURNAL ANNOUNCEMENT: 199810 RAPRA UPDATE: 199818
DOCUMENT TYPE: Patent

LANGUAGE: English
SUBFILE: (R) RAPRA
ABSTRACT: A **grease** composition for use as a **cable** filling material which contains about 25 to 75 parts by weight of castor **oil** or a ricinoleate polyol, about 13 to 71 parts by weight of a hydroxy-terminated polymer of polymerised castor **oil** or the reaction product of a polyisocyanate compound and castor **oil** or a ricinoleate polyol, and about 4 to 12 parts by weight of colloidal particles such as silica, clay or mixtures thereof. Optionally, an **antioxidant** component can be added to impart high temperature resistance, a bleed inhibitor, typically of a rubber component, can be added to improve bleed **resistance**, a **water** blocking agent of a superabsorbent compound can be added to reduce water transmission, microspheres can be added to reduce the weight of the formulation, and/or conventional additives such as fungicides, bacteriocides, etc. can be included. The invention also relates to an article of manufacture such as a **cable** having a sheath surrounding a plurality of optical fibres therein, with one of the **grease** compositions of the invention located therein.
DESCRIPTORS: ABSORBENT; ADDITIVE; **ANTIOXIDANT**; BACTERICIDE; BLEEDING; **CABLE**; CASTOR **OIL** POLYMER; COMPANIES; COMPANY; ELASTOMER; FIBER OPTIC; FIBRE OPTIC; FILLING; FUNGICIDE; **GREASE**; HEAT RESISTANCE; INHIBITOR; INHIBITORS; MICROSPHERE; OPTIC FIBRE; PLASTIC; POLYPROPENE; POLYPROPYLENE; PP; PROPENE POLYMER; PROPYLENE **POLYMER**; RUBBER; SHEATH; SPHERE; **SUPERABSORBENT**; TECHNICAL; THERMAL STABILITY; THERMOPLASTIC

24/7,DE/4 (Item 3 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics

00658250
TITLE: SILICONE ELASTOMERS IN AUTOMOTIVE APPLICATIONS
SOURCE: Materiaux & Techniques; 85, Nos.1/2, Jan./Feb.1997, p.53
ISSN: 0032-6895
CODEN: MATCBW JOURNAL ANNOUNCEMENT: 199802 RAPRA UPDATE: 199802
DOCUMENT TYPE: Journal Article
LANGUAGE: French
SUBFILE: (R) RAPRA
ABSTRACT: Automotive applications of Bayer's Silopren range of silicone rubbers are described. These include Silopren LSR and Silopren RTV-2K two-component liquid silicone rubbers and Silopren HV solid, one-component peroxide vulcanisable silicone rubbers.
DESCRIPTORS: ADDITIVE; ADHESION; AIR BAG; AIRBAG; APPLICATION; AUTOMATION; AUTOMOTIVE APPLICATION; AUTOMOTIVE HOSE; BUMPER; **CABLE**; CAR; CASTING; CHEMICAL PROPERTIES; CHEMICAL RESISTANCE; CHEMICAL RESISTANT; COMPANIES; COMPANY; CORROSION RESISTANCE; CORROSION RESISTANT; CURE

RATE; CURING; CURING AGENT; CYCLE TIME; DAMPING; DATA; DEMOLDING; DEMOULDING; DIRECT INJECTION; DIRECT MOLDING; DIRECT MOULDING; ELASTIC PROPERTIES; ELASTOMER; ENERGY **ABSORPTION**; ENGINE; EPOXIDE **RESIN**; EPOXY RESIN; EXTRUDING; EXTRUSION; FLASHLESS; FLEXIBILITY; FLEXIBLE; GAS PERMEABILITY; GEL; GELS; HEAT CURING; HEAT RESISTANCE; HIGH TEMPERATURE; HOSE; HOT CURING; HYDROPHOBIC; HYDROPHOBICITY; INJECTION MOLDING; INJECTION MOULDING; LIQUID INJECTION MOLDING; LIQUID INJECTION MOULDING; LIQUID RUBBER; LOW TEMPERATURE PROPERTIES; **LUBRICATION**; MECHANICAL PART; MECHANICAL PROPERTIES; MEMBRANE; **MOISTURE RESISTANCE**; MOLD CYCLE; MOLDING; MOULD CYCLE; MOULDING; **OIL** RESISTANCE; **OIL** RESISTANT; ONE-COMPONENT; PEROXIDE VULCANISATION; PEROXIDE VULCANIZATION; PLASTIC; POLYEPOXIDE; PRECISION MOLDING; PRECISION MOULDING; PROPERTIES; ROOM TEMPERATURE CURING; RTV; RUBBER; SEAL; SELF-**LUBRICATING**; SERVICE TEMPERATURE; SHOCK ABSORBER; SILICONE ELASTOMER; SILICONE RUBBER; SINGLE-COMPONENT; SMALL COMPONENT; SMALL-COMPONENT; SOLID; TECHNICAL; THERMAL STABILITY; THERMOPLASTIC; THERMOSET; TRADE NAME; TWO-COMPONENT; TWO-PART; VEHICLE ENGINE; VIBRATION DAMPER; VULCANISATION; VULCANIZATION; WINDSCREEN WIPER BLADE

24/7,DE/5 (Item 4 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics

00652346
TITLE: MICRONISED EXTENDERS
SOURCE: Modern Plastics International; 27, No.10, Oct.1997, p.82
ISSN: 0026-8283
CODEN: MOPLAY JOURNAL ANNOUNCEMENT: 199712 RAPRA UPDATE: 199724
DOCUMENT TYPE: Journal Article
LANGUAGE: English
SUBFILE: (R) RAPRA
ABSTRACT: It is briefly reported that Calplas natural calcium carbonate extenders for compounding with PVC absorb little **oil** and allow reduced usage of plasticiser. Also new from Wolkem India are Fillex A additives based on wollastonite. These are said to reduce moisture absorption in nylons, improve flow, augment dimensional stability and improve thermal stability.
DESCRIPTORS: ADDITIVE; **CABLE**; COMPANIES; COMPANY; DATA; DIMENSIONAL STABILITY; DISSIPATION; ELECTRIC **CABLE**; ELECTRICAL **CABLE**; ELECTRICAL ENERGY; EPOXIDE RESIN; EPOXY RESIN; EXTENDER; FILLER; FLOW PROPERTIES; HEAT **RESISTANCE**; MICRONISED; MICRONIZED; **MOISTURE** ABSORPTION; NYLON; **OIL ABSORPTION**; PHENOLIC **RESIN**; PLASTIC; PLASTICISER; PLASTICIZER; POLYAMIDE; POLYEPOXIDE; POLYVINYL CHLORIDE; POROSITY; PRODUCT ANNOUNCEMENT; PROPERTIES; PVC; SHORT ITEM; STABILITY; THERMAL STABILITY; THERMOPLASTIC; THERMOSET

24/7,DE/6 (Item 5 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics

00621089
TITLE: BAPTISM OF MONTELL
SOURCE: Materie Plastiche ed Elastomeri; No.9, Sept.1995, p.518-23
ISSN: 0025-5459
CODEN: MPELAK JOURNAL ANNOUNCEMENT: 199704 RAPRA UPDATE: 199707
DOCUMENT TYPE: Journal Article
LANGUAGE: English; Italian
SUBFILE: (R) RAPRA
ABSTRACT: Properties and applications of PP and PE grades produced by Montell Polyolefins are reviewed. Uses in packaging, furniture, housewares, hot melt coatings, **cable** insulation, geomembranes and components for the automotive and building industries are described. Turnover and employment figures and production capacities are presented for the Company.
DESCRIPTORS: ABRASION RESISTANCE; ABRASION RESISTANT; ALKENE POLYMER; APPLICATION; AUTOMOTIVE APPLICATION; BIORIENTATION; BLEND; BLOW MOLDING ; BLOW MOULDING; BOTTLE; BOTTLES; BUILDING APPLICATION; BUMPER; **CABLE** INSULATION; CAPACITY; CAR; CAST FILM; CATALYST; CELLULAR MATERIAL; CHEMICAL PROPERTIES; CHEMICAL RESISTANCE; COATING; COEXTRUSION; COMMERCIAL INFORMATION; COMPANIES; COMPANY; COMPOUND; CONTAINER; DAMPING; DATA; DENSITY; ECONOMIC INFORMATION; EMPLOYMENT; ENERGY **ABSORPTION**; ETHYLENE **POLYMER**; FILM; FILMS; FINANCE; FLOOR COVERING; FOAM; FURNITURE; GARDEN FURNITURE; GAS PHASE POLYMERISATION; GAS PHASE POLYMERIZATION; GAS-PHASE POLYMERISATION; GEOMEMBRANE; GRAPH; HARDNESS; HAZE; HDPE; HEAT RESISTANCE; HEAT-SEALING ; HETEROPHASE; HIGH DENSITY POLYETHYLENE; HIGH MODULUS; HOT FILLING; HOT MELT; HOUSEWARE; HOUSEWARES; IMPACT PROPERTIES; IMPACT STRENGTH; INJECTION MOLDING; INJECTION MOULDING; INSULATION; LAMINATED FILM; LDPE ; LINEAR LOW; LOW DENSITY POLYETHYLENE; LOW TEMPERATURE PROPERTIES; MECHANICAL PROPERTIES; MELT FLOW RATE; MELT STRENGTH; MEMBRANE; MODULI; MODULUS; **OIL** RESISTANCE; **OIL** RESISTANT; OLEFIN POLYMER; OPTICAL PROPERTIES; PACKAGING; PACKAGING FILM; PE; PLANT; PLANT CAPACITY; PLASTIC; POLYALKENE; POLYETHYLENE; POLYMERISATION; POLYMERISATION CATALYST; POLYMERISATION CATALYSTS; POLYMERIZATION; POLYMERIZATION CATALYST; POLYOLEFIN; POLYPROPENE; POLYPROPYLENE; PP; PRODUCTION CAPACITY; PROPENE COPOLYMER; PROPERTIES; PROPYLENE COPOLYMER ; PUNCTURE RESISTANCE; PUNCTURE RESISTANT; RANDOM COPOLYMER; RECYCLABILITY; RECYCLING; RESEARCH; RHEOLOGICAL PROPERTIES; RHEOLOGY; ROOF; SACK; TECHNICAL; THERMAL STABILITY; THERMOFORMING; THERMOPLASTIC; THIN-WALL; TRADE NAME; TRANSPARENCY; TURNOVER; VAPOUR PHASE **POLYMERISATION**; **WATER ABSORPTION**; WEAR **RESISTANCE**; WEAR RESISTANT

24/7,DE/7 (Item 1 from file: 347)
DIALOG(R)File 347:JAPIO

05342603
BATTERY PACK WITH **WATERPROOF**/DRIP-PROOF STRUCTURE

PUB. NO.: 08-298103 [JP 8298103 A]
PUBLISHED: November 12, 1996 (19961112)
INVENTOR(s): TAKEISHI RYUTA
KAMURAGI MASAAKI
SHIOJIMA NOBUO
APPLICANT(s): TOSHIBA BATTERY CO LTD [000353] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 07-102609 [JP 95102609]
FILED: April 26, 1995 (19950426)
JAPIO CLASS: 42.9 (ELECTRONICS -- Other); 14.2 (ORGANIC CHEMISTRY -- High Polymer Molecular Compounds)
JAPIO KEYWORD:R007 (ULTRASONIC WAVES); R042 (CHEMISTRY -- Hydrophilic Plastics)

ABSTRACT

PURPOSE: To provide a battery pack excellent in waterproofness and drip-proofness and easy to mass-produce by packing a battery pack main body section containing plural unit cells and a **wiring** circuit in an exterior case main body with a **waterproof** plastic film container.

CONSTITUTION: A battery pack main body section 2 constituted of plural unit cells 2a and a **wiring** circuit electrically connecting them is stored and fixed in an exterior case 5 constituted of an exterior case main body 1 and a cover body 4 via adhesive tapes 6a-6c. A **waterproof** plastic film 3 is suspended on the opening section of the exterior case main body 1 to seal it. The **waterproof** plastic film preferably has the moisture transmission factor of 200X10(sup -11)cc.cm/ cm(sup 2).sec.atm or below at the operating temperature of a battery pack, it is formed with one or more layers, it preferably contains a water **absorbing** or **oil absorbing resin** 50-0.5%, and it preferably has the volume electric resistance of 10(sup 5).omega..cm or below.

24/7,DE/8 (Item 2 from file: 347)
DIALOG(R)File 347:JAPIO

03368490
MATERIAL FOR WATER SHIELD AND OPTICAL FIBER **CABLE**

PUB. NO.: 03-031390 [JP 3031390 A]
PUBLISHED: February 12, 1991 (19910212)
INVENTOR(s): SAKAI YASURO
FUJISAWA NORIAKI
KUWABARA TSUNEO
KUKIDA JUZO
APPLICANT(s): ASAHI CHEM IND CO LTD [000003] (A Japanese Company or Corporation), JP (Japan)
NIPPON TELEGR & TELEPH CORP <NTT> [000422] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 01-165117 [JP 89165117]
FILED: June 27, 1989 (19890627)
JAPIO CLASS: 13.9 (INORGANIC CHEMISTRY -- Other); 14.2 (ORGANIC CHEMISTRY -- High Polymer Molecular Compounds); 29.2 (PRECISION INSTRUMENTS -- Optical Equipment); 41.5 (MATERIALS -- Electric **Wires** & **Cables**)
JAPIO KEYWORD:R012 (OPTICAL FIBERS)

ABSTRACT

PURPOSE: To obtain a material for water shield having excellent **water** running **resistance**, **resistance** to curl and **greasiness** caused by temperature change, coating cushioning properties, non-decomposition properties, etc., comprising a solid substrate having a coated layer containing a water-**absorbing polymer** and a specific rubber-based binder.

CONSTITUTION: The aimed material for water shield comprising a solid substrate having a coated layer consisting of (A) 50-90wt.% water-**absorbing polymer** particles composed >=55wt.% particles with >=50.mu.m (more preferably 70-150.mu.m) particle diameter and absorbing >=10ml water/g (B) 10-50wt.% rubber-based binder having >=50% (preferably 80%) falling ratio 10 minutes after immersion of the material for water shield in water.

24/7,DE/9 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015834787
WPI Acc No: 2003-896991/200382
Method for preparing amine-terminated polybutadiene polymers with terminal amine group(s), comprises aminating secondary hydroxyl-terminated polybutadiene free of ether groups
Patent Assignee: SARTOMER TECHNOLOGY CO INC (SART-N); CHAO H S (CHAO-I); DREXLER A R (DREX-I); SCHMIDHAUSER J (SCHM-I); TIAN N (TIAN-I)
Inventor: CHAO H S; DREXLER A R; SCHMIDHAUSER J C; TIAN N; SCHMIDHAUSER J
Number of Countries: 031 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030096916	A1	20030522	US 2001331932	P	20011121	200382 B
			US 2002300435	A	20021120	
EP 1314744	A2	20030528	EP 2002102611	A	20021120	200382

Priority Applications (No Type Date): US 2001331932 P 20011121; US 2002300435 A 20021120

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030096916	A1		5	C08F-008/30	Provisional application US 2001331932
EP 1314744	A2	E		C08C-019/00	

Designated States (Regional): AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI SK TR

Abstract (Basic): US 20030096916 A1

Abstract (Basic):

NOVELTY - Method for preparing amine-terminated polybutadiene polymers with one or two terminal amine groups by aminating a secondary hydroxyl-terminated polybutadiene devoid of ether groups.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) amine-terminated polybutadiene polymer with one or two terminal amine groups, which is optionally hydrogenated;

(2) polymer prepared from a composition comprising the amine-terminated polybutadiene;

(3) polyurea prepared by reacting the amine-terminated polybutadiene polymer with phosgene, diisocyanates or urea;

(4) cured epoxy article prepared by reacting the amine-terminated polybutadiene polymer with an epoxy resin;

(5) polyamide prepared by reacting the amine-terminated polybutadiene polymer with a dicarboxylic acid or acid ester;

(6) polyamide copolymer prepared by reacting the amine-terminated polybutadiene polymer with a polyamide or polyester;

(7) polyamic acid or polyimide prepared by reacting the amine-terminated polybutadiene polymer with a dianhydride and dehydrating the resultant compound;

(8) polyimide copolymer prepared by reacting the amine-terminated polybutadiene polymer with a polyimide;

(9) phenolic resin prepared by reacting a phenolic compound with the amine-terminated polybutadiene polymer, in a Mannich reaction;

(10) composition comprising a **water-proofing** membrane, coating, adhesive, sealant, electric potting compound or liquid binder, used in braking system, is prepared by polymerizing the composition comprising the amine-terminated polybutadiene polymer; and

(11) process of flexibilizing, toughening or cross-linking a cured resin or chain extending polyurethane aqueous dispersion, which involves preparing the resin or extending the dispersion with the amine-terminated polybutadiene polymer.

USE - For preparing amine-terminated polybutadiene polymer used for waterproofing membranes or coatings in construction industry, adhesives and sealants for housing, road paving, bridges, electronic components, automotive applications, marine applications and aeronautical applications, electric potting, liquid binders used in brake systems, automotive coatings, roof deck coatings and **cable** insulation. Also used as tougheners, flexibilizers or cross-linkers to produce cured reins with improved physical properties.

ADVANTAGE - The amine-terminated polybutadiene polymer with one or two terminal amine groups has excellent **water resistance** and low dielectric properties, favorable thermal oxidation and ultraviolet stability. The amine-terminated **polymers** improves the **water absorption** and impact **resistance** of the nylons. The amine-terminated polybutadiene has improved weatherability when reacted with polyisocyanates, epoxides, anhydride functional polymers, phenolics, or multifunctional carboxylic acid or ester derivatives. The hydrogenated amine-terminated polybutadiene polymer renders better thermo-oxidative and ultraviolet stability to the materials derived from them.

pp; 5 DwgNo 0/0

Title Terms: METHOD; PREPARATION; AMINE; TERMINATE; POLYBUTADIENE; POLYMER; TERMINAL; AMINE; GROUP; COMPRISE; AMINATE; SECONDARY; HYDROXYL; TERMINATE ; POLYBUTADIENE; FREE; ETHER; GROUP

Derwent Class: A12; A28; A81; A82; G02; G03; G04

International Patent Class (Main): C08C-019/00; C08F-008/30

International Patent Class (Additional): C08F-008/04; C08L-015/00; C09D-115/00; C09J-115/00

24/7,DE/10 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

014873304

WPI Acc No: 2002-694010/200275

Biodegradable polymers useful for cosmetics, surfactants and food additives contains both hydrophilic and hydrophobic portions

Patent Assignee: MITSUI CHEM INC (MITA)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 2002194078	A	20020710	JP 2000397818	A	20001227	200275	B

Priority Applications (No Type Date): JP 2000397818 A 20001227

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2002194078	A		20	C08G-069/08	

Abstract (Basic): JP 2002194078 A
Abstract (Basic):

NOVELTY - A polymer contains a hydrophilic portion and a hydrophobic portion.

DETAILED DESCRIPTION - The hydrophilic portion in the polymer contains one or both of repeating units of (Ia) and/or repeating units of (Ib) and repeating units of (2-2a) and/or repeating units of (2-2b) and the hydrophobic portion in the polymer contains repeating units (3-3a) and/or repeating units (3-3b) in the molecule.

R1=pendant group containing at least one functional group of carboxyl or its salt, sulfonic acid group or its salt, trialkylammonium, OH or amino;

R3=alkylene, aralkylene or arylene;

R4=alkyl, aryl or aralkyl;

X1,X3=NH, N(R'), O or S;

R'=alkyl, aryl or aralkyl;

n1,n2,n3=1 or 2;

M=alkali metal ion, alkaline earth metal ion or ammonium ion;

X4=ester, amido, thioester, oxycarbonyl, urethane, urea, aminocarbonyl, thioxycarbonyl or thiourea.

An INDEPENDENT CLAIM is also included for a manufacturing method for the polymers containing a step to introduce the pendant groups.

USE - The polymers are useful for dispersants for pigments, agrochemical granules, fine powdery carbon, cement and **lubricating oil** cleaning, scale inhibitors, flow point-lowering agents, plastic coloration auxiliaries, compatibilizers, macromolecular flocculants, filtering agents, yield improvers, printing ink binders, hair set polymers, binders for unwoven fabrics, plastic-reinforced fibers, electrophotographic toners, magnetic tapes, resin concrete, molding sand and fine ceramics, sealants, adhesives, foam stabilizers, antifoamers, emulsion breakers, **lubricants**, polymers for coatings, floor polishes and photoresists, tablet coatings, masking agents, optical fiber coatings, plastic hardcoats, **moisture-proof** coatings for printed **wiring** boards, paper sizes, paper strengthening agents, glazing coatings, resist treatments for fibers, anti-static agents, conductors, electromagnetic wave-shielding coatings, **waterproof** agents for concrete, primers, printing sizing agents, polymers for petroleum production, civil engineering, quenching **oils** and hydraulic **oils**, viscosity index improvers, plasticizers, **oil absorption polymers**, agents with binding action for builders, chelating polymers, dyes fixers and epoxy resin curatives, sustained releasing carriers for drugs, agrochemicals and fertilizers, emulsions, creams, cleansing creams, powders, lip sticks, toilet waters, lotions, wet tissues, manicures, pedicures, humectants, packs, shaving creams, after-shaving lotions, hair tonics, hair liquids, hair sprays, deodorants, hair styling agents, perfumes, eau de colognes, eau de toilettes, fragrances, bath products and aromatizers.

ADVANTAGE - The polymers have excellent biodegradability and safety and both hydrophilicity and hydrophobicity without irritability to the human bodies.

pp; 20 DwgNo 0/0

Title Terms: BIODEGRADABLE; POLYMER; USEFUL; COSMETIC; SURFACTANT; FOOD; ADDITIVE; CONTAIN; HYDROPHILIC; HYDROPHOBIC; PORTION

Derwent Class: A23; A96; B07; C07; D21

International Patent Class (Main): C08G-069/08

International Patent Class (Additional): A61K-007/00; C08G-069/48

24/7,DE/11 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

014864734

WPI Acc No: 2002-685440/200274

Biodegradable polymers useful for e.g. drug carriers, cosmetics, surfactants and food additives contain both hydrophilic and hydrophobic parts

Patent Assignee: MITSUI CHEM INC (MITA)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 2002194080	A	20020710	JP 2000397817	A	20001227	200274	B

Priority Applications (No Type Date): JP 2000397817 A 20001227

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2002194080	A		20	C08G-073/10	

Abstract (Basic): JP 2002194080 A

Abstract (Basic):

NOVELTY - Polymer contains a hydrophilic part and a hydrophobic part.

DETAILED DESCRIPTION - Polymer contains a hydrophilic part and a hydrophobic part. The hydrophilic part contains repeating units comprising CH((CH2COX1R1)n1)CONH and/or CH(COX1R1)(CH2CONH)n1 and CH((CH2COOM)n2)CONH and/or CH(COOM)(CH2CONH)n2 (50-90% per total repeating units).

The hydrophobic part contains at least two types of repeating units of CH((CH2COX3R3)n3)CONH and/or CH(COX3R3)(CH2CONH)n3, CH((CH2COX4R4)n4)CONH and/or CH(COX4R4)(CH2CONH)n4 and CH((CH2COX5R5)n5)CONH and/or CH(COX5R5)(CH2CONH)n5 (10-50% per total repeating units).

R1=pendant group containing at least one functional group of carboxyl or its salt, sulfonic acid group or its salt, trialkylammonio, OH or amino;

R3=4-12C straight hydrocarbyl;
R4=13-20C straight hydrocarbyl;
R5=4-20C branched hydrocarbyl;
X1, X3-X5=NH, N(R'), O or S;
R'=alkyl, aryl or aralkyl;
n1-n5=1 or 2, and
M=alkali metal ion, alkaline earth metal ion or ammonium ion.
An INDEPENDENT CLAIM is also included for production of the polymers which involves introducing the pendant groups.
USE - The polymers are useful for dispersants for pigments, agrochemical granules, fine powdery carbon, cement and **lubricating oil** cleaning, scale inhibitors, flow point-lowering agents, plastic coloration auxiliaries, compatibilizers, macromolecular flocculants, filtering agents, yield improvers, printing ink binders, hair set polymers, binders for unwoven fabrics, plastic-reinforced fibers, electrophotographic toners, magnetic tapes, resin concrete, molding sand and fine ceramics, sealants, adhesives, foam stabilizers, antifoamers, emulsion breakers, **lubricants**, polymers for coatings, floor polishes and photoresists, tablet coatings, masking agents, optical fiber coatings, plastic hardcoats, **moistureproof** coatings for printed **wiring** boards, paper sizes, paper strengthening agents, glazing coatings, resist treatments for fibers, antistatic agents, conductors, electromagnetic wave-shielding coatings, **waterproof** agents for concrete, primers, printing sizing agents, polymers for petroleum production, civil engineering, quenching **oils** and hydraulic **oils**, viscosity index improvers, plasticizers, **oil absorption polymers**, agents with binding action for builders, chelating polymers, dyes fixers and epoxy resin curatives, sustained releasing carriers for drugs, agrochemicals and fertilizers, emulsions, creams, cleansing creams, powders, lip sticks, toilet waters, lotions, wet tissues, manicures, pedicures, humectants, packs, shaving creams, after-shaving lotions, hair tonics, hair liquids, hair sprays, deodorants, hair styling agents, perfumes, eau de colognes, eau de toilettes, fragrances, bath products and aromatizers.
ADVANTAGE - The polymers have good biodegradability and safety and both hydrophilicity and hydrophobicity without irritability.
pp; 20 DwgNo 0/0
Title Terms: BIODEGRADABLE; POLYMER; USEFUL; DRUG; CARRY; COSMETIC; SURFACTANT; FOOD; ADDITIVE; CONTAIN; HYDROPHILIC; HYDROPHOBIC; PART
Derwent Class: A23; A96; B07; C07; D21; D25
International Patent Class (Main): C08G-073/10
International Patent Class (Additional): C08G-069/48

24/7,DE/12 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012861674
WPI Acc No: 2000-033507/200003
Manufacture of water **absorbing resin** used in diaper, sanitary towel, pad for incontinence, optical fibers etc - involves stir polymerization and standing polymerization of a hydrophilic monomer
Patent Assignee: NIPPON SHOKUBAI CO LTD (JAPC)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 11302306	A	19991102	JP 98131312	A	19980424	200003 B

Priority Applications (No Type Date): JP 98131312 A 19980424
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11302306	A		7	C08F-002/00	

Abstract (Basic): JP 11302306 A
NOVELTY - A hydrophilic monomer is polymerized by supplying an aqueous solution containing it, to a polymerization apparatus. The monomer is subjected to stir polymerization, followed by standing polymerization.
USE - The water **absorbing resin** is used as desiccant, coagulant, dew formation **inhibitor**, separation material for **water** in **oil**, **wire** or water sealant material for optical fibers and engineering works. The resin is also used for diaper, sanitary towel, pad for incontinence.
ADVANTAGE - The resin has excellent hydrophilicity and affords few water extractives and deterioration extractives.
Dwg.0/1
Title Terms: MANUFACTURE; WATER; ABSORB; RESIN; DIAPER; SANITARY; TOWEL; PAD; INCONTINENCE; OPTICAL; STIR; STAND; HYDROPHILIC; MONOMER
Derwent Class: A96; D22; F07
International Patent Class (Main): C08F-002/00
International Patent Class (Additional): C08F-002/10; C08F-220/06; C08F-290/06

24/7,DE/13 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012748957
WPI Acc No: 1999-555074/199947
Manufacture of water **absorbing resin** - useful for diapers and sanitary towels
Patent Assignee: NIPPON SHOKUBAI CO LTD (JAPC)
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 11240903	A	19990907	JP 98357844	A	19981216	199947	B

Priority Applications (No Type Date): JP 97358148 A 19971225

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11240903	A		9	C08F-002/00	

Abstract (Basic): JP 11240903 A

NOVELTY - A hydrophilic polymer aqueous solution and one or more kinds of polymerisation initiator are supplied to a polymerisation machine (14) through respective feed pipes and are polymerized by continuous still-standing polymerisation. DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an apparatus for manufacturing water **absorbing resin**. The apparatus contains monomer feed pipe (A) for supplying hydrophilic monomer aqueous solution to polymerisation machine and polymerisation initiator feed pipe (B) for supplying polymerisation initiator to the polymerisation machine. The monomer feed pipe and polymerisation initiator feed pipe are adjoined.

USE - The water **absorbing resin** is used for children and adults in paper diapers, sanitary towels and pads for incontinence. It is also used as a separation material for water in **oil**, desiccants, water retaining materials, coagulants, condensation formation **inhibitors**, **wire** of **water** sealant material for optical fibers or water sealant material for engineering construction works.

ADVANTAGE - The monomer and initiator are mixed uniformly. The polymerisation does not begin within the initiator feed pipe and monomer feed pipe. DESCRIPTION OF DRAWING(S) - The figure shows the manufacturing method of the water **absorbing resin**. (14) **Polymerisation** machine; ; (A) Monomer feed pipe; ; (B) Polymerisation initiator feed pipe.

Dwg.1/4

Title Terms: MANUFACTURE; WATER; ABSORB; RESIN; USEFUL; DIAPER; SANITARY; TOWEL

Derwent Class: A14; A96; D22

International Patent Class (Main): C08F-002/00

24/7,DE/14 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX

012671901

WPI Acc No: 1999-478008/199940

System for cleaning **oil** contaminated articles

Patent Assignee: EATON CORP (EAYT)

Inventor: RUSH S; SALAS P
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5931174	A	19990803	US 97876649	A	19970616	199940	B

Priority Applications (No Type Date): US 97876649 A 19970616
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5931174	A		10	B08B-003/04	

Abstract (Basic): US 5931174 A
Abstract (Basic):

NOVELTY - The cleaning apparatus has a wash tank(14) containing deionized water and detergent. Articles in a **wire** cage(22) are placed in said tank for washing. Wash water is collected in trough(34) and passed through an **oil** retainer(36) to remove **oil** only. The **oil free water** and detergent is then pumped(44) through a filter(48) back to the wash tank.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for: A portable system to wash **oil** contaminated articles using the apparatus detailed above. Preferred Features: - The **oil** retainer(36) is an oleophyllic porous **polymer** that **absorbs oil** and changes the polymer molecular structure. The polymer may be an elastomeric ethylene/alpha-olefin copolymer that does not affect the detergent in the water. A rinse tank(18) is also included with a water conditioning system including a carbon pack filter(74), a de-ionizing apparatus(76) and a 20-micron filter(84) driven by pump(60). Heater means(82) may be included in one or both water conditioning systems.

USE - To clean **oil** contaminated articles.

ADVANTAGE - The system has no drain connection requirement and can be made into a portable system on skid support means.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic of the system.

Apparatus (10)
Wash station (12)
Wash tank (14)
Rinse station (16)
Rinse tank (18)
Basket (22)
Rinse sections (24,26)
Water collecting troughs (34,54)
Oil retainer (36)
Pumps (44,60)
Filters (48,84)
Carbon pack filter (74)
De-ioniser (76)

Heater (82)
pp; 10 DwgNo 3/5
Title Terms: SYSTEM; CLEAN; **OIL**; CONTAMINATE; ARTICLE
Derwent Class: A97; D15; P43
International Patent Class (Main): B08B-003/04

24/7,DE/15 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012071847
WPI Acc No: 1998-488758/199842
Complex absorbent media for fluid such as air, water, cement milk - has base material with **absorbency polymers** capable of retaining swelled state even after removal of suction fluid
Patent Assignee: NIPPON SHOKUBAI CO LTD (JAPC)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 10211429	A	19980811	JP 97328942	A	19971128	199842	B

Priority Applications (No Type Date): JP 96319183 A 19961129
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 10211429	A		8	B01J-020/28	

Abstract (Basic): JP 10211429 A

The absorbent media is equipped with a base material consisting of two kinds of **absorbency polymer** and is maintained in compressed state to absorb a suction fluid. The media attains swelled state due to absorption of suction fluid. The swelled state is retained even when the suction fluid is removed by drying.

USE - Used as filler between foot walk, tiles and leak prevention member in **cables**, base rock, bank **water barrier** material. Used in **water proofing** of ceiling, **water** treatment plant and water sealing material in job site. Employed as filler in junction portion of architecture members and public work field. Used as water retainer in material for seedling, absorbers like disposable diaper and water pots for plant. Used to manufacture water keeping material for agriculture and horticulture field. Used as dew formation prevention material in gasoline and lamp **oil** reservoir. Used in dehumidification of building material garments, domestic electric appliance. Used as humidifier, coolant, dust collector, and refractory and fire extinguisher.

ADVANTAGE - Excels in handling property and workability. Enables high level of dilation by suction fluid swelling. Simplifies cutting and disconnection work.

Dwg.0/0
Title Terms: COMPLEX; ABSORB; MEDIUM; FLUID; AIR; WATER; CEMENT; MILK; BASE ; MATERIAL; ABSORB; POLYMER; CAPABLE; RETAIN; SWELLING; STATE; EVEN; AFTER; REMOVE; SUCTION; FLUID
Derwent Class: J04; P73
International Patent Class (Main): B01J-020/28
International Patent Class (Additional): B01J-020/26; B32B-005/18

24/7,DE/16 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011467990
WPI Acc No: 1997-445897/199741
Waterproof cable for e.g. **wire** harness of motor vehicle - has **lubricant** provided between surfaces of twisted line conductors and resin powder to make adhesive strength for conductive surface of resin powder lower than adhesive strength for sheath
Patent Assignee: SUMITOMO DENSO KK (SUME)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 9204822	A	19970805	JP 9612803	A	19960129	199741	B

Priority Applications (No Type Date): JP 9612803 A 19960129
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 9204822	A		4	H01B-007/28	

Abstract (Basic): JP 9204822 A

The **cable** has several line conductors (2) twisted around a central conductor. A sheath (3) is distributed around the twisted line conductors. **Absorption**-expandable **resin** powder (4) fills the portion between the twisted line conductors and sheath to ensure **waterproof** characteristic.

Lubricant is provided between the surfaces of the twisted line conductors and resin powder to make the adhesive strength for the conductive surface of the resin powder lower than the adhesive strength for the sheath.

ADVANTAGE - Prevents conduction defect between conductors and terminals since resin powder is not removed from conductive surface and resin powder fills portion between conductor and sheath. Ensures simple **cable** manufacture since sheath is formed on perimeter of twisted line conductors. Reliably adheres resin powder to sheath.

Dwg.1/3
Title Terms: **WATERPROOF; CABLE; WIRE**; HARNESS; MOTOR; VEHICLE; **LUBRICATE**; SURFACE; TWIST; LINE; CONDUCTOR; RESIN; POWDER;

ADHESIVE; STRENGTH; CONDUCTING; SURFACE; RESIN; POWDER; LOWER; ADHESIVE; STRENGTH; SHEATH
Derwent Class: X12; X22
International Patent Class (Main): H01B-007/28
International Patent Class (Additional): H01B-013/32

24/7,DE/17 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX

011197802
WPI Acc No: 1997-175727/199716
Liq. absorbing material used in e.g. moisture controlling agent and paper diaper, etc. - prepd. by polymerising solution prepared by dissolving N-vinyl carboxylic acid amide in polyhydric alcohol
Patent Assignee: SHOWA DENKO KK (SHOW)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 9040717	A	19970210	JP 95216607	A	19950802	199716	B

Priority Applications (No Type Date): JP 95216607 A 19950802
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 9040717	A		9	C08F-026/02	

Abstract (Basic): JP 9040717 A

Prepn. of a liq.-**absorbing** material comprises **polymerising** a mixed soln. (Ia) of a precursor of a liq.-absorbing material. (Ia) is prepd. by dissolving N-vinylcarboxylic acid amide (VCAA) of formula CH2=CH-N(R1)COR2 (I) or a mixt. of VCAA and (a) other copolymerising ethylenic unsatd. monomer in (b1) a polyhydric alcohol and/or its deriv. having a m. pt. of room temp. or lower or (b2) an aq. mixed soln. contg. 10 wt. % or more of (b1), in a total concn. of monomers of 10-80 wt. %. R1, R2 = H or CH3. Also claimed is the above liq.-absorbing material prepd. by dissolving VCAA or a mixt. of VCAA and (a) in (b1) or (b2) and reacting in the presence of (c1) a crosslinking agent contg. at least 2 ethylenic unsatd. bonds in a molecular and/or (c2) a polyfunctional crosslinking agent. (c2) can produce a covalent bond by reacting with the functional gps. in (a).

VCAA is preferably N-vinylacetamide and/or N-methyl-N-vinylacetamide. (b1) is ethylene glycol, diethyleneglycol, triethylene glycol, propyleneglycol, 1,3-butylene glycol, 2,3-butylene glycol, 1,4-butylene glycol, glycerol, trioxyisobutane, its monoalkylether or its monoester.

USE - The liq.-absorbing material is suitable for e.g. food prods.,

(e.g. a sharpness-maintaining material); a dehydrating, a water-feeding and a moisture-controlling agent; agricultural and gardening prods. (e.g. soil-improving agent, a water-retaining and water-feeding agent for planting soil, a seed-producing agent,a dew drop-proofing material); a domestic and building moisture-absorbing material; a running **water-prevention** material for a communication **cable**, a **water-proofing** and **water**-stopping material for equipment, a moisture-controlling material; medical tools (e.g. a gradual release agent for agrochemicals and fertilisers); toiletries, (e.g. paper diaper or sanitary napkin); a sealing material, a water-stopping tape or an adhesive tape for civil engineering, building and house; a sand-proofing material; a liq.-absorbent agent-packed soil; an excavating assistant or **lubricant** for bases for e.g. tunnels, buildings, bridges; a domestic fragrance, an anti-odour agent, an extinguishing agent, a heat-accumulating agent; battery, electrodes, sensor parts; a heat-insulating material, a vibration-absorbing material, a sound-absorbing material, packaging material.

ADVANTAGE - The liq.-absorbing material has good flexibility and high gelling strength after liq. absorption. The material can highly absorb a large amt. of sea water and some organic solvents and can be moulded into an arbitrary shape.

Dwg.0/0

Title Terms: LIQUID; ABSORB; MATERIAL; MOIST; CONTROL; AGENT; PAPER; DIAPER ; PREPARATION; POLYMERISE; SOLUTION; PREPARATION; DISSOLVE; N; VINYL; CARBOXYLIC; ACID; AMIDE; POLY; HYDRIC; ALCOHOL
Derwent Class: A14; A85; A92; A93; A96; A97; C04; D22; F07; G02; X12
International Patent Class (Main): C08F-026/02
International Patent Class (Additional): C08F-002/04

24/7,DE/18 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX

010180264
WPI Acc No: 1995-081517/199511
Chemical duct blocking kit for use in fibre optic **cables** - comprises antifreeze gel and solid absorbent which are mixed to form solid blocking compsn
Patent Assignee: AMERICAN POLYWATER CORP (AMPO-N)
Inventor: DAHLKE S H; FEE J M; MILLER W R
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5385688	A	19950131	US 931860	A	19930108	199511	B

Priority Applications (No Type Date): US 931860 A 19930108

Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
US 5385688 A 7 C09K-005/00

Abstract (Basic): US 5385688 A

A chemical duct blocking kit comprises: (a) a container holding an antifreeze gel compsn. comprising: (i) 60-90 wt.% alkylene glycol; (ii) 0.5-3 wt.% polymeric thickener; (iii) 0-3 wt.% alkali metal hydroxide; and (iv) 10-40 wt.% water; and (b) a second container holding a solid absorbent powder composition comprising: (i) 30-90 wt.% hydroxyalkyl cellulose; and (ii) 10-70 wt.% super-**absorbent** starch-graft **polymer**; a blocking compsn. being formed when the antifreeze gel compsn. is combined with the absorbent compsn..

Also claimed are: (1) a chemical duct blocking compsn. in solid form; (2) a method of retaining an antifreeze gel compsn. in a **cable** conduit line; and (3) methods of preventing ice formation and dissolving ice in a **cable** conduit.

USE - Esp. in fibre optic **cable** conduits, where ice formation causes microbending and consequent increased attenuation, limiting the ability to send high bit rate digital signals.

ADVANTAGE - The compsns. avoid the high costs and cure rate variation problems of rubber-based **water barriers**, and the incompatibility and environmental problems of water-repellant **greases**.

Dwg.0/0

Title Terms: CHEMICAL; DUCT; BLOCK; KIT; FIBRE; OPTICAL; **CABLE**; COMPRISE; ANTIFREEZE; GEL; SOLID; ABSORB; MIX; FORM; SOLID; BLOCK; COMPOSITION
Derwent Class: A97; G04; X12
International Patent Class (Main): C09K-005/00

24/7,DE/19 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009062477
WPI Acc No: 1992-189869/199223
Insulating waterproofing material for joining electric **wires** - obtd. by moulding rubber compsn. contg. EPR, paraffin **oil** and organic peroxide into tapes and sheets and vulcanising
Patent Assignee: FURUKAWA ELECTRIC CO LTD (FURU)
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 4126789	A	19920427	JP 90246725	A	19900917	199223	B
JP 2610060	B2	19970514	JP 90246725	A	19900917	199724	

Priority Applications (No Type Date): JP 90246725 A 19900917
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 4126789	A		6	C09K-003/10	
JP 2610060	B2		6	C09K-003/10	Previous Publ. patent JP 4126789

Abstract (Basic): JP 4126789 A

The waterproofing material is obtd. by moulding into tapes and sheets and vulcanising a rubber compsn. consisting, of (A) 100 pts.wt. of high molecular wt. EPR having a ML1+4(121 deg.C) value (Mooney viscosity defined in JIS K6300) of more than 100, (B) 300-600 pts.wt. paraffin **oil** and (C) 1-15 pts.wt. organic peroxide.

Pref. the rubber compsn. may additionally contain high **absorbent resin**. This insulating waterproofing material may be reinforced with net structure core material.

USE/ADVANTAGE - The sheet or tape type material is suitable for waterproofing jointed parts of electric **wires**. This material closely adheres to the joint due to its good elasticity and shows excellent waterproofing property. It is less tacky due to vulcanisation and so it is easily dismantled and reused.

Dwg.0/1

Title Terms: INSULATE; **WATERPROOF**; MATERIAL; JOIN; ELECTRIC; **WIRE**; OBTAIN; MOULD; RUBBER; COMPOSITION; CONTAIN; EPR; PARAFFIN; **OIL**; ORGANIC; PEROXIDE; TAPE; SHEET; VULCANISATION
Derwent Class: A17; A32; A85; L03; P73; X12
International Patent Class (Main): C09K-003/10
International Patent Class (Additional): B32B-025/04; C08J-005/00; C08L-023/16; C09K-003/18; H01B-003/00; H01B-007/18; H02G-015/08

24/7,DE/20 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007375957
WPI Acc No: 1988-009892/198802
Watertight power **cable** - has water-**absorptive** organic **polymer** between water-stopping metal layer and **grease** layer on **cable** core NoAbstract Dwg 0/1
Patent Assignee: DAINICHI NIPPON CABLES LTD (DAIE)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 62272408	A	19871126	JP 86117032	A	19860520	198802	B

Priority Applications (No Type Date): JP 86117032 A 19860520
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes

JP 62272408 A 4
Title Terms: **WATERTIGHT**; POWER; **CABLE**; WATER; ABSORB; ORGANIC; POLYMER; WATER; STOP; METAL; LAYER; **GREASE**; LAYER; **CABLE**; CORE; NOABSTRACT
Derwent Class: A85; L03; X12
International Patent Class (Additional): H01B-007/28

24/7,DE/21 (Item 13 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004009665
WPI Acc No: 1984-155207/198425
Anticorrosive watertight cable - comprises outer insulator layer and composite based on rubber or plastics and water **absorbing resin** NoAbstract Dwg 1/1
Patent Assignee: FUJIKURA CABLE WORKS LTD (FUJD)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 59081804	A	19840511	JP 82191773	A	19821102	198425	B

Priority Applications (No Type Date): JP 82191773 A 19821102
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 59081804	A		5		

Title Terms: **ANTICORROSIVE**; **WATERTIGHT**; **CABLE**; COMPRISE; OUTER; INSULATE; LAYER; COMPOSITE; BASED; RUBBER; PLASTICS; WATER; ABSORB ; RESIN; NOABSTRACT
Derwent Class: A85; L03; X12
International Patent Class (Additional): H01B-007/28

24/7,DE/22 (Item 14 from file: 350)
DIALOG(R)File 350:Derwent WPIX

003682815
WPI Acc No: 1983-42789K/198318
Mixture for **waterproof cable** - consists of polybutene in petrolatum, **oil**, water **absorbing resin**, polyethylene or petroleum wax, oxidn. inhibitor etc. NoAbstract
Patent Assignee: FUJIKURA CABLE WORKS LTD (FUJD)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 58051413	A	19830326				198318	B

Priority Applications (No Type Date): JP 81149060 A 19810921
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
JP 58051413 A 9
Title Terms: MIXTURE; **WATERPROOF**; **CABLE**; CONSIST; POLYBUTYLENE; PETROLATUM; **OIL**; WATER; ABSORB; RESIN; POLYETHYLENE; PETROL; WAX; OXIDATION; INHIBIT; NOABSTRACT
Derwent Class: A85; X12
International Patent Class (Additional): H01B-007/28
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